

Utilization of SWOT Analysis, QSPM, SPACE to Determine Educational Strategy at Gabungan High School Jayapura

Sandra Titihalawa*, Suwito Eko Pramono*, Yeri Sutopo*, Ida Zulaeha*, Haryono*

*Doctoral Education Management Study Program, Unoversitas Negeri Semarang. Jl. Kelud Utara III, Petompon, Kec. Gajahmungkur, Semarang City, Central Java 50237, Indonesia

*Corresponding Author: sandratitihalawa@students.unnes.ac.id

Abstract. Gabungan High School is one of the oldest schools in Papua. A private school founded by the Protestant and Catholic Education Foundation under the auspices of two (2) churches, namely Protestant and Catholic. In its work in the world of education, the Jayapura Gabungan High School has also helped shape the nation's civilization. Around 75 years ago, at the start of the school's establishment, the Jayapura Combined Gabungan High School was an excellent school, had many enthusiasts, and had produced quality graduates such as ministers, governors and regents. However, the existence of the Gabungan High School did not last, when the government started building public schools, not only that, many private schools were built, this became a separate threat to the Gabungan High School. Through this research, do a strategy analysis that will be made by the school using the SWOT matrix, position and action evaluation (SPACE) strategy matrix, Grand Strategy Matrix and Quatitive Strategic Planning Matrix (QSPM) which begins with an analysis of the factors that have an impact on the school both from within and from outside school. The results obtained are 3 (three) strategic programs which are categorized as priority programs, namely 1) Schools build in collaboration with parents who have knowledge of administration to provide material for education staff; 2) Building cooperation with traditional parties to secure the school environment; and 3) Building alumni support.

Keywords : SWOT; QSPM; Education Strategy

INTRODUCTION

The quality of education is the end result of a process carried out by all parties, starting from the center, districts/cities, and down to the smallest units, namely schools. The civilization of a nation in the future will be determined by the continuity of the educational process that is currently taking place, it can be said that if an educational process is carried out by emphasizing character education then what is formed in the future is the nation's existence which upholds character values, if education is focused only on knowledge approach to address global market competition or global industry, the resulting civilization is a selfish national civilization, individualism (Ismawati & Amertawengrum, 2023) . Even this is stated in one part of the goal of national education which is to shape the nation's civilization (Hamdani et al., 2023) . Jayapura Gabungan High School is an excellent school, has many enthusiasts, and has produced quality graduates such as ministers, governors and regents. However, the existence of the Gabungan High School did not last, when the government started building public schools, not only that many private schools were built, this became a separate threat to the Gabungan High School. The impact of conditions that continue to

develop in society is a lack of interest, the condition of infrastructure that is less supportive, many buildings are not maintained, and the education system is not managed properly. The number of students is decreasing day by day, even in 2003-2005 the Combined High School was almost closed because it did not have students according to the provisions.

One other factor that becomes a challenge in itself is the culture of the community. Customs that do not understand the importance of education. The problem that arises is that there is a school blockage when the construction of classrooms is carried out. So that it needs serious handling and creating precise strategies in developing schools in the future. In the aspect of management governance at the Gabungan High School it has not been maximized, a good analysis has not been carried out about the strategies that must be carried out to determine clear directions and goals, of course taking into account cultural conditions, customs which are the characteristics of the Papuan people. Schools still determine the direction of goals only in determining the vision, mission and goals and even then only as a formality as an administrative demand. With the phenomena that are quite complex in the Gabungan High School environment, it is necessary to take steps to analyze the strategies

that will be taken to overcome the existing problems. (Prayudi & Yulistria, 2020) revealed that the SWOT matrix can help organizations to find strengths, weaknesses, challenges and obstacles that exist in the field. The strategy position matrix and action evaluation are matrices that can help to get the type of strategy that is suitable for use by organizations (Wardhani & Dini, 2020).

Using SPACE to analyze Novaland and Hung Thinh real estate companies in Vietnam to determine the right strategy using the SPACE matrix (Gepner et al., 2022). QSPM is one of the methods used by organizations or companies to determine the strategy that will be carried out (Wahyuni et al., 2020). Strategy analysis techniques use the SWOT matrix, *position and action evaluation strategy matrix* (SPACE), *Grand Strategy Matrix and Quatitive Strategic Planning Matrix* (QSPM) (Fred R David 2019). The hope is that when the results of the strategy analysis have been carried out, all members of the Joint High School will understand and understand what will be done in the next 4 to 5 years. The school's direction and goals will become clear, and of course it will become a benchmark for future evaluations.

Research purposes

1. Knowing whether SWOT, SPACE, and QSPM can provide additional insights to assist schools in strategic decision making.
2. Can using SWOT, SPACE, and QSPM produce strategic programs to overcome problems that occur in the school

environment?

METHODS

The research method used is a literature survey and documentation method. Researchers conducted an analysis of external and internal factors at school. Then analyze these two factors using the internal factor evaluation matrix (IFE) and the external factor evaluation matrix (EFE). IFE and EFE results were analyzed using the SWOT matrix, and the SPACE matrix then using the QSPM matrix found strategies to solve problems in schools.

RESULTS AND DISCUSSION

According to (Yusuf et al., 2020) said that before using the SWOT matrix it is necessary to analyze external factors and internal factors. So that in the first step in preparing the SWOT matrix, *position and action evaluation strategy matrix* (SPACE), *Boston Consulting Group* (BCG) matrix, *Grand Strategy Matrix and Quatitive Strategic Planning Matrix* (QSPM) it is necessary to carry out external analysis and internal analysis.

Before making a SWOT matrix, first analyze the factors from within and outside the organization that influence the development of the Gabungan High School. The preparation of the strategic position matrix and evaluation is carried out after identifying the factors from outside and within the organization that influence the organization.

Table 1. Internal Factors of the Gabungan High School Evaluation Matrix

Internal factors	Weight	Rating	Weighted score
Strength			
1. Have good management governance.	0.05	4	0.2
2. Educators / education have a good morale	0.05	3	0.2
3. Educators/education enthusiastically accept change	0.10	4	0.4
4. Nearly 100% of educators have educational qualifications that comply with the rules	0.03	3	0.09
5. The application of democratic leadership, is open to innovation	0.10	3	0.3
6. Quite a large number of students	0.01	3	0.03
7. Supervision of teacher performance through the implementation of supervision is carried out routinely and consistently	0.10	4	0.3
8. Routinely carry out discussions and sharing through the learning community, carried out continuously.	0.10	4	0.3
9. Have good internet access	0.10	4	0.3
10. Nearly 99% of students are native Papuans	0.02	3	0.06
11. Almost all teachers are able to use technology	0.05	3	0.15

Weakness			
1. The professional competence of educational staff needs attention	0.05	1	0.05
2. Sarpras is not optimal, especially in laboratory and class rooms.	0.07	1	0.07
3. The UKS room is not optimal	0.02	2	0.04
4. Don't have BP/BK Room	0.05	2	0.1
5. Does not have a library	0.03	1	0.03
6. Does not have a play page	0.04	1	0.04
7. The school doesn't have a fence yet	0.03	1	0.03
Amount	1.00		2.69

Table 2. External Factors Evaluation Matrix of the Gabungan High School

Internal factors	Weight	Rating	Weighted score
Opportunities			
1. Government support through the driving school program	0.10	4	0.40
2. Alumni Support	0.20	4	0.80
3. The location of the school in the center of Jayapura city is easy to access	0.20	4	0.80
4. The support from the Se Rayon Church was very maximal	0.05	3	0.15
5. Support from Satpol PP in the form of cooperation with schools	0.05	3	0.15
6. The global impact makes access to learning using the internet quite good.	0.15	3	0.45
Threat			
1. About 65% of students come from broken home families.	0.10	1	0.10
2. Culture and customs still influence the education system	0.05	1	0.05
3. Parental support for school programs is not maximized	0.05	2	0.10
4. The position of the school is still joining the community	0.05	2	0.10
Amount	1.00		3,1

Table 3. of the Jayapura Combined YPPDK High School SWOT Matrix

Strength (S)	Weakness (W)
1. Have good management governance.	1. The professional competence of educational staff needs attention
2. Educators / education have a good morale	2. Sarpras is not optimal, especially in laboratory and class rooms.
3. Educators enthusiastically accept change	3. The UKS room is not optimal
4. Nearly 100% of educators have educational qualifications that comply with the rules	4. Don't have BP/BK Room
5. The application of democratic leadership, is open to innovation	5. Does not have a library
6. Supervision of teacher/tu performance through the implementation of supervision is carried out routinely and consistently	6. Does not have a play page
7. Routinely carry out discussions and sharing through the learning community, carried out continuously.	7. The school doesn't have a fence yet
8. Have good internet access	
9. Nearly 99% of students are native Papuans	

(O) opportunities	10. Almost all teachers are able to use technology	
	SO strategy	WO strategy
1. Good public interest is evidenced by the large number of students	1. Building alumni support	1. Collaborate with alumni to complete the lack of infrastructure
2. Alumni Support	2. Building communication with various parties to support school programs	2. Build partnerships with parents to support school programs
3. The location of the school in the center of Jayapura city is easy to access	3. Facilitating quality learning.	3. Building a digital library.
4. The support from the Se Rayon Church was very maximal		
5. Support from Satpol PP in the form of cooperation with schools		
6. The global impact makes access to learning using the internet quite good.		
Threat (T)	ST Strategy	WT Strategy
1. About 65% of students come from broken home families.	1. Collaborate with homeroom teachers for assistance for students who have problems in the family	1. Collaborate with parents who have knowledge of administration to provide materials for education staff.
2. Culture and customs still influence the education system	2. Through homeroom teachers can involve parents in school programs	2. Building cooperation with traditional parties to secure the school environment.
3. Parents' support for school programs has not been maximized	3. Build good relations with the community around the school	
4. The position of the school is still joining the community		

Table 3 shows the results of the SWOT matrix showing several school programs from the analysis of strengths, weaknesses, threat and opportunities. Then produced several programs that can be implemented in schools. In compiling the SPACE matrix, it is necessary to consider the results of identifying factors from within and outside the organization. As a basis for compiling

the matrix, two dimensions are determined from within and two dimensions from outside the organization. Namely the position of school management, learning position, environmental position and partner position. After conducting a SWOT analysis, the following steps are carried out using the SPACE matrix which can be seen in table 4.

Table 4. SPACE Matrix for the Gabungan High School

FP School Management Position	Rating
Have good management governance.	5.0
Educators enthusiastically accept change	3.0
Nearly 100% of educators have educational qualifications that comply with the rules	4.0
The application of democratic leadership, is open to innovation	2.0
Routinely carry out discussions and sharing through the learning community, carried out continuously	3.0
Almost all teachers are able to use technology	5.0
The professional competence of educational staff needs attention	3.0

IP learning position	
Educators / education have a good morale	4.0
Have good internet access	6.0
Nearly 99% of students are native Papuans	5.0
Sarpras is not optimal, especially in laboratory and class rooms.	4.0
The UKS room is not optimal	3.0
Don't have BP/BK Room	3.0
Does not have a library	5.0
Does not have a play page	3.0
The school doesn't have a fence yet	5.0
SP environmental position	
Government support through the driving school program	-2
The location of the school in the center of Jayapura city is easy to access	-1
The global impact makes access to learning using the internet quite good.	-3
About 65% of students come from broken home families	-5
Culture and customs still influence the education system	-3
Partner position CP	
Alumni Support	-1
The support from the Se Rayon Church was very maximal	-3
Support from Satpol PP in the form of cooperation with schools	-4
Parental support for the school program is not maximized	-2
The position of the school is still joining the community	-5
Average SP = -2.8 Average CP = -3.00	
Average IP = 3.8 Average FP = 2.57	
X-axis directional vector coordinates = $-3.00 + (+3.8) = 0.8$	
Y axis = $-2.8 + 2.57 = -0.05$	

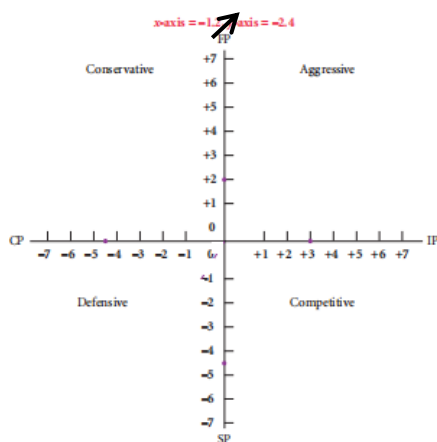


FIGURE 8-6
A SPACE Matrix for Domino's Pizza

Figure 1. Directional vector results
x axis and y axis

According to Fred 2019 that when viewed from the calculation results, the rational factor is in the aggressive quadrant, it is explained that the organization that is developing at the Combined High School is in a very good stage of using strength from within the school so that it is used to take advantage of opportunities that come from influences outside the school, it is advisable to fix the weaknesses in the school and must be able to avoid threats from outside the school.

The following step is to create a QSPM matrix to find out the best strategy to be used in schools. This stage is the determination stage, using data from the results of the matrix analysis of the factors of influence within the school and the matrix of factors of influence outside the school.

For strategy identification taken from the SWOT matrix can be seen in table 5.

Table 5. Codes and types of strategies to be used in the QSPM matrix

CODE	TYPE OF STRATEGY
1SO	Building alumni support
2SO	Building communication with various parties to support school programs
3. SO	Facilitating quality learning.
1WO	Collaborate with alumni to complete the lack of infrastructure
2WO	Build partnerships with parents to support school programs
3WO	Building a digital library.

1st	Collaborate with homeroom teachers for assistance for students who have problems in the family
2ST	Through homeroom teachers can involve parents in school programs
3ST	Build good relations with the community around the school
1WT	Collaborate with parents who have knowledge of administration to provide materials for education staff.
2WT	Building cooperation with traditional parties to secure the school environment.

Based on the data using the SPACE matrix, it is known that the Gabungan is in the aggressive square, so it is recommended to improve factors within the school to avoid threats that come from outside the school, so the strategy to be analyzed

in the QSPM matrix is to focus on 1WT and 2WT. According to Fred, filling in the TAS column is based on the question *whether this component influences the choice strategy to be used?*.

Table 5. QSPM. Analysis results of the Gabungan High School

ALTERNATIVE STRATEGY							
	Weigh ht	1WT		2WT		1SO	
		US	BAG	US	BAG	US	BAG
Strength							
1. Have good management governance.	0.05	4	0.20	4	0.20	4	0.20
2. Educators / education have a good morale	0.05	4	0.20	2	0.10	1	0.05
3. Educators enthusiastically accept change	0.10	2	0.20	2	0.20	2	0.20
4. Nearly 100% of educators have educational qualifications that comply with the rules	0.03	2	0.06	1	0.03	1	0.03
5. The application of democratic leadership, is open to innovation	0.10	4	0.40	4	0.40	4	0.40
6. Quite a large number of students	0.01	3	0.03	2	0.03	3	0.03
7. Supervision of teacher/tu performance through the implementation of supervision is carried out routinely and consistently	0.10	1	0.10	1	0.10	1	0.10
8. Routinely carry out discussions and sharing through the learning community, carried out continuously.	0.10	4	0.40	1	0.40	1	0.10
9. Have good internet access	0.10	3	0.30	2	0.20	3	0.30
10. Nearly 99% of students are native Papuans	0.02	1	0.02	4	0.04	4	0.08
11. Almost all teachers are able to use technology	0.05	4	0.20	1	0.05	1	0.05
Weaknesses							
1 The professional competence of educational staff needs attention	0.05	4	0.20	1	0.05	1	0.05
2. Sarpras is not optimal, especially in laboratory and class rooms.	0.07	3	0.21	2	0.14	3	0.21
3. The UKS room is not optimal	0.02	1	0.02	3	0.06	2	0.04
4. Don't have BP/BK Room	0.05	1	0.05	3	0.15	3	0.15
5. Does not have a library	0.03	2	0.06	3	0.06	3	0.09
6. Does not have a play page	0.04	1	0.04	3	0.12	3	0.12
7. The school doesn't have a fence yet	0.03	1	0.03	3	0.09	3	0.09
opportunities							

1. Government support through the driving school program	0.10	1	0.10	1	0.10	1	0.10
2. Alumni Support	0.20	1	0.20	4	0.80	4	0.80
3. The location of the school in the center of Jayapura city is easy to access	0.20	3	0.60	3	0.60	4	0.80
4. The support from the Se Rayon Church was very maximal	0.05	3	0.15	4	0.20	3	0.15
5. Support from Satpol PP in the form of cooperation with schools	0.05	1	0.05	3	0.15	1	0.05
6. The global impact makes access to learning using the internet quite good.	0.15	3	0.45	1	0.15	1	0.15
Threat							
1. About 65% of students come from broken home families.	0.10	1	0.10	1	0.10	1	0.10
2. Culture and customs still influence the education system	0.05	1	0.05	4	0.20	3	0.12
3. Parents' support for school programs has not been maximized	0.05	1	0.05	4	0.20	2	0.10
4. The position of the school is still joining the community	0.05	1	0.05	3	0.15	3	0.15
AMOUNT			5.50		5.07		4.81

From the total score for the strategy to be carried out there is IWT with the highest total score of 5.50. So that the priority strategy that will be carried out is to work with parents who have knowledge of administration to provide material for educational staff. Furthermore, 2WT has a score of 5.07 which is Building cooperation with customary parties to secure the school environment. The final strategy is ISO which has a score of 4.81, namely building alumni support. These three strategies must be carried out by Gabungan High School in Jayapura to overcome external threats by leveraging strength from within the school.

However, the use or utilization of this matrix in the Gabungan High School environment in general has not been carried out. So that the results of the study using the matrix certainly produce new programs that are strategies that can be solutions to problems in schools. Another consideration is the study of the SPACE matrix, QPSM is commonly used to analyze companies and industries, but is rarely used in educational settings. In this paper, we try to do an analysis using some of these matrices, to produce strategic programs in the world of education. The same thing has been done by (Yusuf et al., 2020) using several matrices to analyze school conditions so as to produce several priority programs and alternative programs. The results of the analysis were carried out based on the condition of the school and the environment around the school,

resulting in 3 (three) strategic programs which were categorized as priority programs namely

1. Schools build in collaboration with parents who have knowledge of administration to provide materials for educational staff.
2. Building cooperation with traditional parties to secure the school environment
3. Building alumni support.

Diffusion of Innovation Impacts

The world of education, especially in educational units, the aspect of diffusion is an important suggestion, without diffusion, the innovation products produced will be in vain. The diffusion aspect of an innovation is determined by the principal. (Carreiro & Oliveira, 2019) explained that the transformational leadership style is a fundamental influence in the diffusion of innovation. (Klein & Şener, 2022) found that advertising subsidies increase diffusion, growth, and prosperity when advertising is only informative. (Kishi, 2019) said that using Schumpeter's model to diffuse innovation through increasing output due to growth is very important. From this understanding, diffusion for the three priority programs can be carried out using advertisements, social activities involving parents, alumni and traditional parties. Advertising activities and designs related to the 3 priority programs will be reviewed in the following stages. (Davis et al., 2022) revealed that the diffusion of knowledge is influenced by

the age factor , so it needs to be done as early as possible. With various assistance and breakthroughs made by all components starting from educators, education staff, parents, alumni , school members and the community, in this case the traditional party , will have an impact on changing the face of the school, increasing the number of students, increasing student achievement, and increase in student discipline.

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